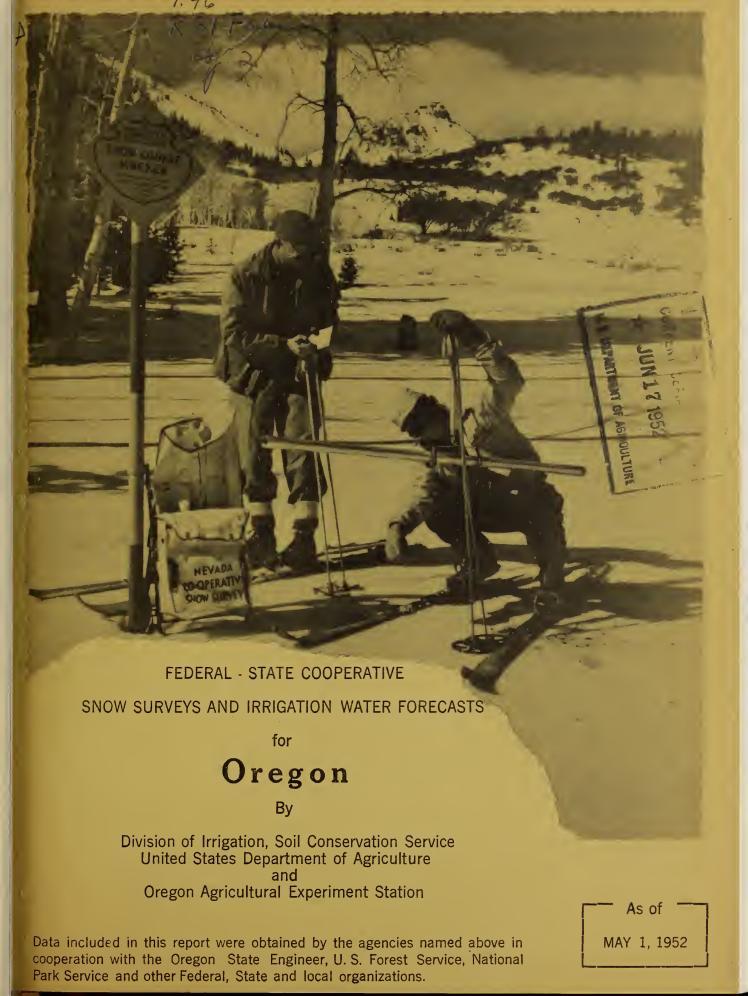
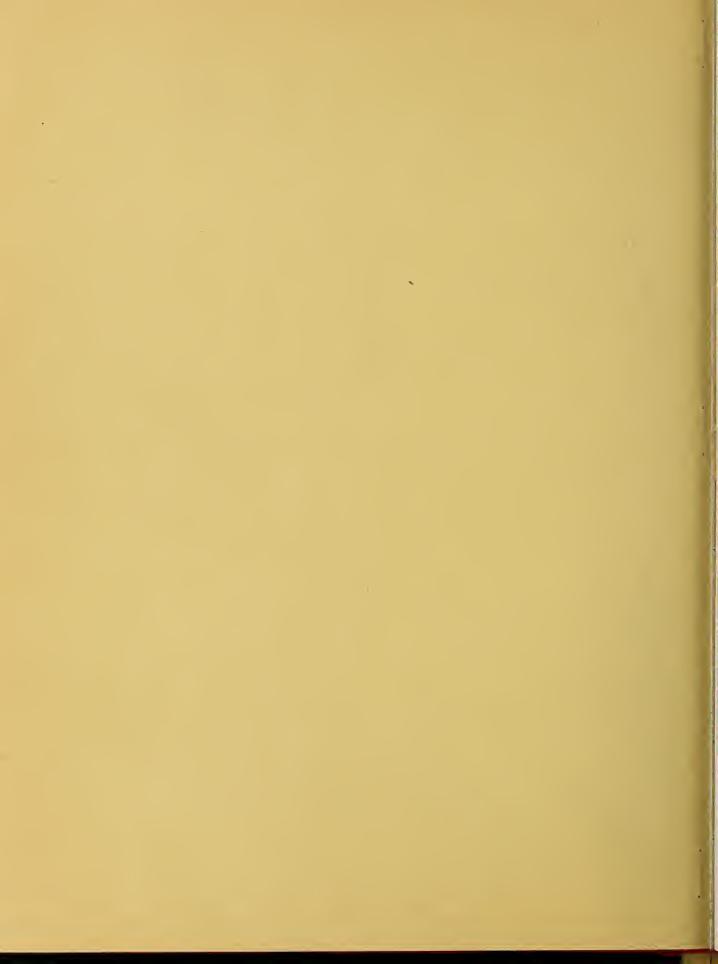
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FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

OREGON

Report Prepared by

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Issued

May 9, 1952

Division of Irrigation
Soil Conservation Service
and
Oregon Agricultural Experiment Station
P. O. Box 1149
Medford, Oregon



REVISED WATER SUPPLY OUTLOOK FOR OREGON

May 1, 1952

Revisions in Oregon's 1952 water supply prospects indicate the entire State should receive "excellent" to "abundant" supplies this summer with near record or record-breaking streamflows forecasted to come from an all-time high of snow cover in many sections. Stored water in reservoirs has now come up to 112 percent average and water has been spilled from 12 out of 24 of the larger reservoirs to provide space for later inflow.

Snow surveys made on 29 Oregon snow courses, as of May 1, indicate that 28 percent of the record high April 1 snow has melted and largely disappeared from the mountain watersheds. As is normal, the heaviest melt has occurred at elevations below 5000 feet where 54 percent of the snow cover has already melted away. Above 5000 feet, only 15 percent of the snow has melted. The remaining snow cover is now 124 percent of average, 144 percent of this date in 1951 and 94 percent of that of 1950.

Total water stored in 24 of the larger Oregon reservoirs is now 112 percent of the 1941-50 average, 106 percent of 1951, 113 percent of 1950, and 87 percent of capacity.

State-wide precipitation during April averaged about 60 percent normal, varying from 35 and 37 percent normal in the Columbia River and Central Oregon areas to 80 and 84 percent normal in the Blue and Wallowa Mountain areas. Southeastern and Southcentral Oregon were about 70 and 65 percent normal, while Southern Oregon had 43 percent and Willamette Valley 49 percent normal.

Among the new records of streamflow already established, several are outstanding and will be of general interest.

Inflow to Upper Klamath Lake during April has been tentatively figured at 430,000 acre feet this year, compared to the previous April record of 346,000 acre feet measured in 1906. The heaviest flow into Klamath Lake for any single month was measured in March of 1907 at 367,000 a.f.

Average daily second-foot flow of Rogue River above Prospect during April was about 2,050, compared to the record of 1,691 second-feet established in April of 1943.

Runoff of Owyhee River into the huge Owyhee Reservoir was measured at 939,875 acre feet during April this year, compared to 810,000 acre feet which was the previous all-time record measured in April of 1892.

See pages 2, 3, 4 and 5 for streamflow forecasts.

REVISED STREAMFLOW FORECASTS - MAY 1, 1952

The following summarized runoff forecasts are based on mountain snow cover and on the assumption that precipitation and temperature during the remainder of the runoff season will be approximately normal. Appreciable deviations from normal of temperature and/or precipitation, especially during May or June, will correspondingly modify these forecasts.

BASIN AND STREAM	il-Sept., in	Meast	ured Run	off* 10	-Yr.Avg.
	1952	1951	1950	1949	1941-50
¹ Columbia R. near The Dalles	112,000.0	11' 109,896.0	7,528.0 D 9:		4,815.0
NORTH CENTRAL OREGON					
Hood River at Powerdale plus					
Power Canal	350.0	а	497.6	483.1	318.8
Hood River, W.Fk. near Dee	170.0	a	228.6	225.1	
White R. below Tygh Valley	180.0	a	233.1	265.6	155.0
UMATILLA-WALLA WALLA					
Walla Walla R., So. Fk. nr. Milton	70.0	а	88.3	84.8	72.2
Umatilla River near Gibbon	87.0	a	106.7	110,1	92.9
Umatilla River at Pendleton	170.0	a	213.0	212.9	
McKay Cr. above McKay Res.	25.0	a	39.9	22.7	31.9
NORTHEASTERN OR EGON					
Grande Ronde R. nr. La Grande	180.0	a	235.8	191.5	199.2
Catherine Creek near Union	65.0	a	67.1	73.0	71.8
Bear Creek near Wallowa	95.0	a	75.5	73.6	73.2
Lostine River near Lostine	158.0	a	137.7	130.2	127.8
Hurricane Creek near Joseph Wallowa River, E. Fk. plus	56 • O	a	42,8	48,6	46.2
Power Plant	15.0	a	10.8	11.3	11.6
Imnaha River at Imnaha	440.0	267.5	287.7	254.0	303.0
Powder River at Salisbury Burnt River near Hereford	85.0	a	66.1	70.0	64.3
(Natural Flow)	63,0	a	49,7	47.0	43,6
EASTERN OREGON					
Malheur R. Mid. Fk. nr. Drewsey	125.0	a	63.3	68.5	75.9
Malheur River, N.Fk. atBeulah	100.0	a	63.6	56.5	62.2
Owyhee R. above Owyhee Res.	1,000.0	а	338.8	494.0	417.3
John Day R. at Prairie City,					
combined with Power Canal	95.0	a	43.1	44.9	52.9
John Day R., Mid. Fk. at Ritter	230.0	a	125.8	123.2	127.4
John Day R., No. Fk. near Dale	440.0	a	267.7	288.2	261.1
Strawberry Cr.nr. Prairie City	11.0	a	.7.1	8.3	8.4

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer.

aDischarge data not available.

¹ Forecast by Boise Office, Soil Conservation Service.



			emflow in		
BASIN AND STREAM	Forecast		ured Runo	ff* 10-	Yr.Avg.
	1952	1951	1950	1949	1941-50
HARNEY BASIN					
Silvies River near Burns Donner und Blitzen River, near	150.0	a	83.8	79.1	97.7
Frenchglen	120.0	58.7	57.1	45.9	65.0
Trout Creek near Denio	20.0	a	6.0	5.1	8.5
CENTRAL OREGON					
Crooked River near Post	210.0	a	141.2	115.2	121.9
Ochoco Reservoir, Net Inflow	50.0	a	32.8	33.3	29.9
Crescent Lake, Net Inflow	30.0	a	35.0	29.4	19.0
Little Deschutes River, near					
Lapine, Natural Flow	140.0	a	137.1	122.1	85.0
Odell Creek near Crescent	40.0	a	40.3	34.9	29.0
Deschutes R. below Snow Creek	100.0	a	79.4	76.2	57.9
Crane Prairie Reservoir Inflow	175.0	a	155.3	151.6	115.8
Deschutes R. at Pringle Falls	350.0	a	330.3	285.9	263.9
Deschutes R. at Benham Falls	635.0	a	632.0	555.8	480.4
Tumalo Creek and C. S. Canal	58.0	a	60.4	58.1	48.0
Squaw Creek near Sisters	63.0	a	60.5	60.8	48.5
SOUTHCENTRAL OREGON					
Chewaucan River near Paisley	150.0d	a	67.2d	65.0d	64.4
Deep Creck above Adel	125.0 ^d	а	70.3 ^d	71.4 ^d	
KLAMATH BASIN					
Sprague River near Chiloquin Williamson River, below	505.0	282.2	207.3	183.9	219.1
Sprague River	760.0	457.6	354.4	320.6	361.5
Upper Klamath Lake, Net Inflow	950.0	611.0	423.9	396.7	462.9
Clear Lake Res., Net Inflow	125.0	32.4	33.9	34.7	39.6
Gerber Reservoir, Net Inflow	70.0	12.3	14.5	20.2	18.1
SOUTHERN OREGON					
Applegate River near Ruch	300.0	a	140.2	118.4	114.8
Hyatt Reservoir, Net Inflow	9.0	3.8	6.3	7,6	5.8
Fourmile Lake, Net Inflow	11.5	a	8.6	8.5	8.1
Little Butte Creek, N.Fk.below		•			,,,,
Fish Lake (Natural Flow)	19.5	a	17.9	18.9	14.3
Rogue River, N.Fk.above Prospect	445.0	345.5	380.5	375.5	305.1
Rogue R., Mid. Fk. plus Power Canal	107.0	a	82.5	91.1	73.6
Rogue R., So. Fk. near Prospect,		.,			
plus canal	115.0	a	91.8	105.1	74.6
Rogue River below South Fork	940.0	a,	808.8	790.8	656.9

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer.

aDischarge data not available.
dApril-June, rather than April-September.

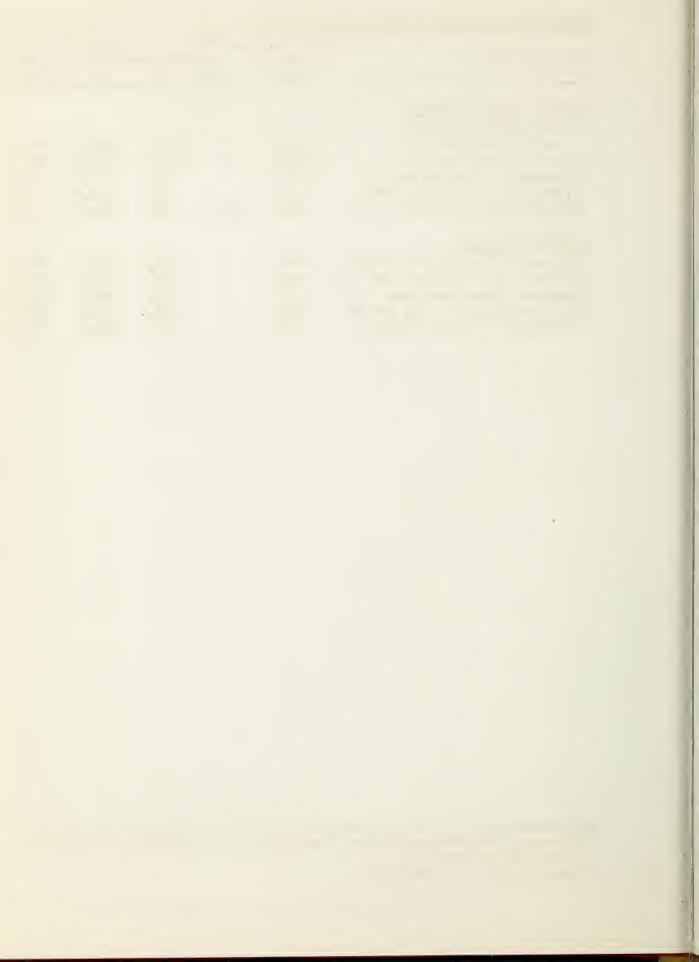


Streamflow Forecasts	-	May 1	. 1952	(Cont'd)
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	1302 (CONG. C.				
	April-Sept., inc				
BASIN AND STREAM	Forecast	Meas	ured Run	off* 10-	-Yr.Avg.
	1952	1951	1950	1949	1941-50
SOUTHERN OREGON (Cont'd)					
Rogue River at Raygold					
near Central Point	1230.0	a	1057.6	1026.2	882.3
Rogue R. at Grants Pass	1240.0	a	1061.8	975.0	857.8
Clearwater R. above Trap Cr.	77.0	а	71.1	71.8	62,0
N. Umpqua R. below Lake Creek	200.0	a	189.0	183.0	160.5
N. Umpqua R. at Toketee Fall	s 490 .0	445.3	467.4	458.7	372.9
WILLAMETTE VALLEY					
Willamette R., Mid. Fk. at Eu	la 1140.0	a	1125.0	1019.2	824.4
McKenzie R. at McKenzie Bri		a	771.8	716.4	562.
McKenzie River near Vida	1400.0	a	1725.2		1214.
Clackamas River at Big Bott	om 185.0	a	235.4	231.1	163.
Clackamas River near Cazade		a	1158.3	1159.0	796.

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer.

aDischarge data not available.



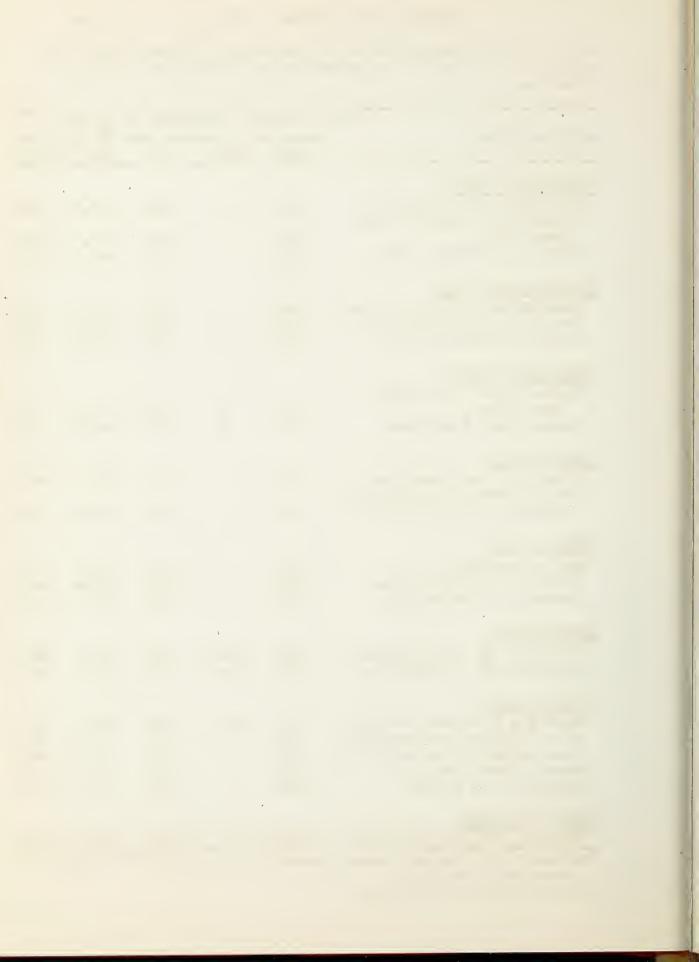
REVISED OREGON STREAMFLOW FORECASTS - MAY 1, 1952

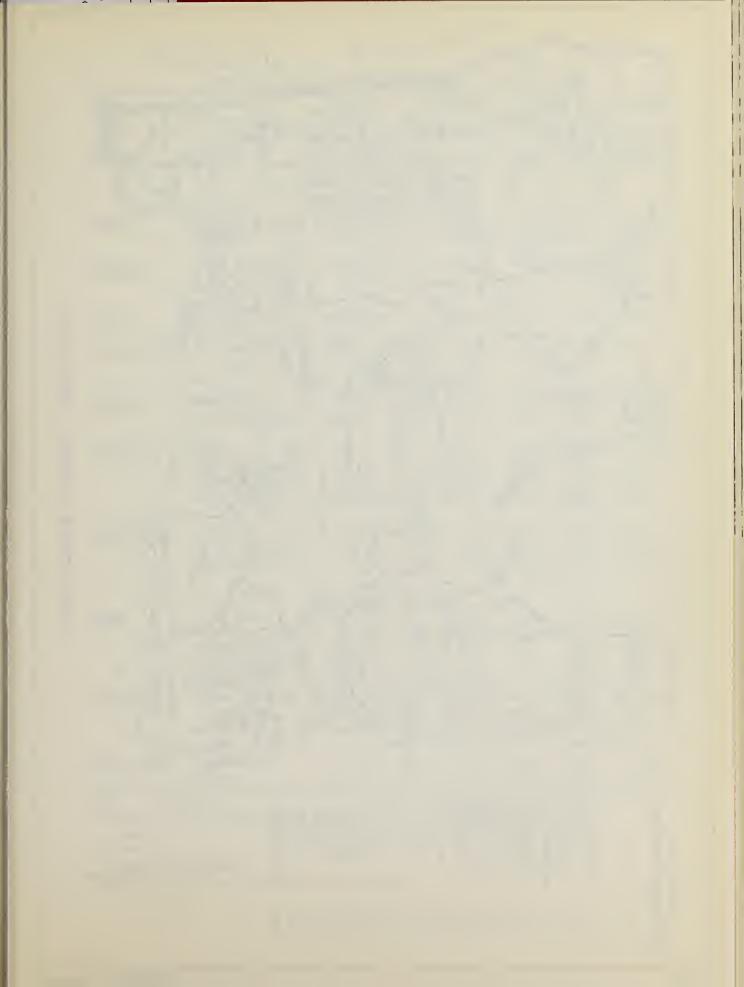
The following forecasts are for the period April 1 through July 1 and will be of value both ot irrigationists and hydro-power generating interests:

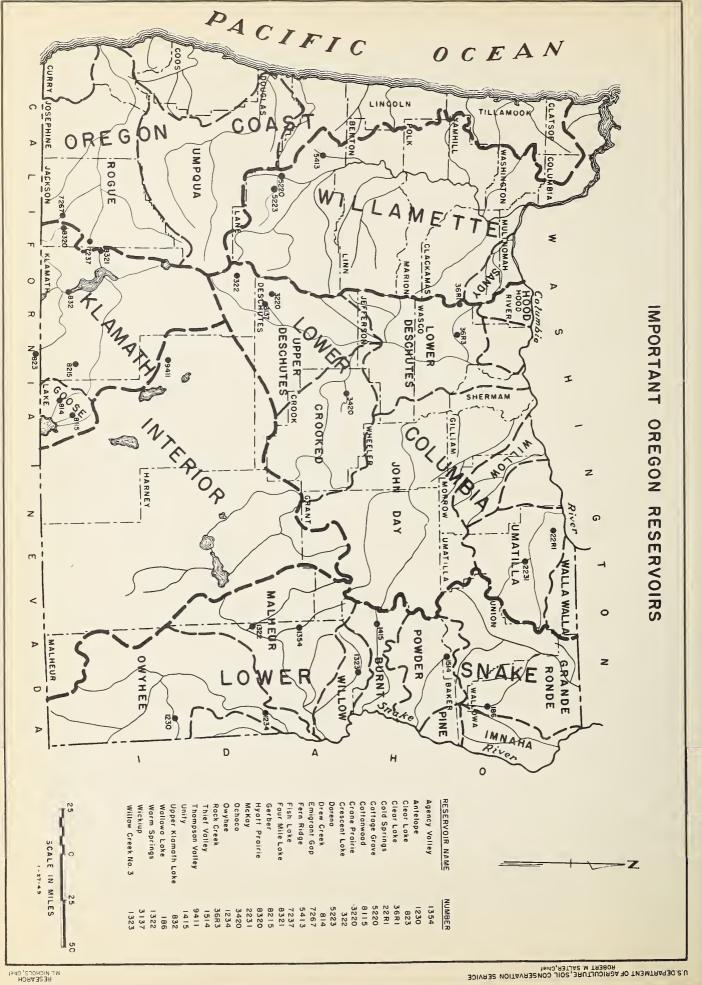
	il-July, in				
BASIN AND STREAM	Forecast 1952	1951	red Rune 1950	1949	1941-50
NORTHCENTRAL OREGON					
Hood River, W. Fk. near Dee	150.0	a	199.6	197.2	134.4
Hood River at Powerdale plus Power Canal	290.0	а	428.2	413.4	270.4
White R. below Tygh Valley	160.0	a	212.1	245.6	139.4
UMATILLA-WALLA WALLA					
Walla Walla R., So, Fk. nr. Milton	60.0	a	72.5	70.4	59.4
Umatilla River at Pendleton	163.0	a	208.0	208.5	177.5
McKay Cr. above McKay Res.	24.0	a	39.8	22.6	31.6
NORTHEASTERN OREGON					
Wallowa River, E. Fk. plus	٦0 -		0.5	0.4	0 5
Power Plant	12.5	a	8.5	9.4	9.3
Powder River at Salisbury	83.0	a	64.0	68.8	62.4
EASTERN OREGON					
Owyhee R. above Owyhee Res. John Day River at Prairie City	940.0	a	312.9	472.1	392.7
combined with Power Canal	87.0	a	38.9	40.2	47.5
CENTRAL OREGON					
Little Deschutes	125.0	а	121.3	106.8	75.4
Deschutes at Pringle Falls	190.0	a	179.0	162.8	158.6
Deschutes at Benham Falls	420.0	a	416.6	366.2	322.4
KLAMATH BASIN					
Williamson R. below Sprague R.	645.0	391.4	292.8	257.9	296.8
Upper Klamath Lake, NetInflow	810.0	509.3	333.1	317.0	364.3
SOUTHERN OREGON					
Rogue R., N.Fk. above Prospect	390.0	282.3	322.2	324.1	255.0
Rogue R., Mid. Fk. plus Power Canal	85.0	۵	65.4	74.9	58.3
Rogue R., So. Fk. plus Power Canal	100.0	a	79.8	93.0	63.2
Rogue R. below South Fork	795.0	a	662.0	664.4	532.4
Rogue River at Raygold	1065.0	a	900.3	877.6	739.7
WILLAMETTE VALLEY					
Clackamas River at Big Bottom	155.0	a	196.1	195.6	132.5

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer.

aDischarge data not available.







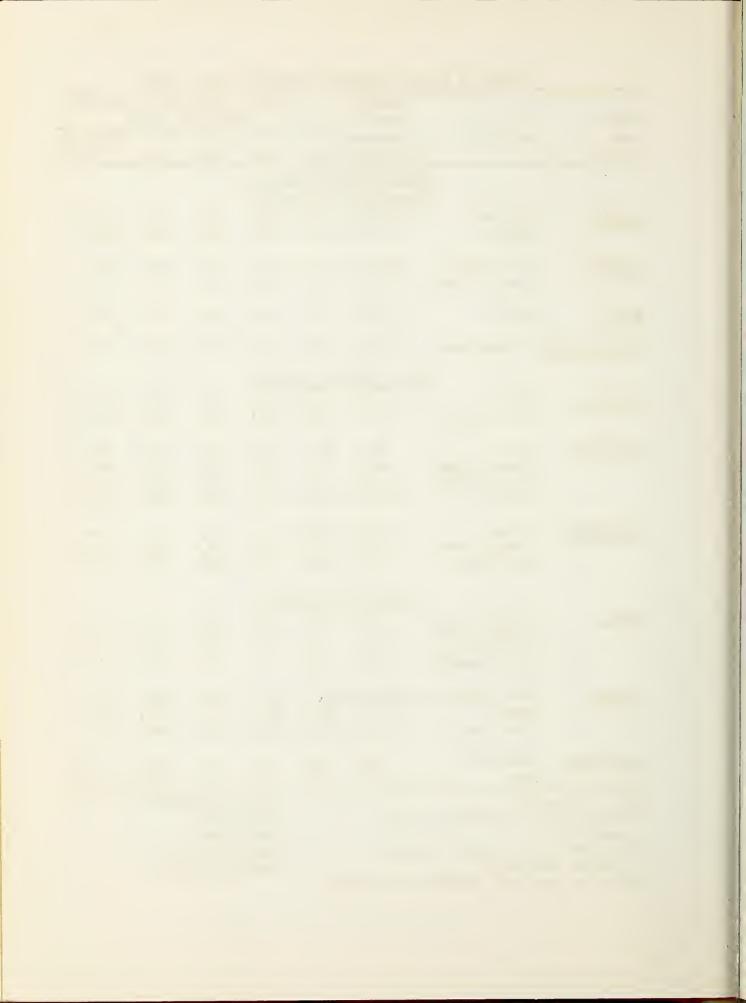
BASIN		USABLE CAPACIT			ACRE F		STORAGE
and	RESERVOIR	(Thousan	-	A	DOOL MA	T FIROI	10Yr.Avg
STREAM		Acre Feet		1951	1950	1949	1941-50
	Ų	PPER COLU	MBIA DR	AINAGE			
		Lower Sna		-			
Owyhee	Antel op e	36.5	N.R.	-	N.R.	N.R.	31_0 ^d
	Owyhee	715.0	699.8	715.0	644.7	592.7	651.3
Malheur	Warm Springs	191.0	186.1	120.4	72.4	98.3	138.7
	Agency Valley	60,0	60.1	50.0	47.5	57.1	56.4
Burnt	Unity	25.2	17.3	22.9	20.8	23.4	22.5
Grande Ronde	Wallowa Lake	40.9	15.6	20.8	12.3	21.1	23.8
	Ţ	OWER COLU	MBIA DR	AINAGE			
Umatilla	МсКау	74.0	59,8	68.2	67.0	65.5	66.6
,	Cold Springs	50.0	45.5	48.1	49,9	48.0	48.4
Deschutes	Ochoco		43.6		33.6	39.0	34.2
	Crescent Lake		46.5			-	
	Crane Prairie		52.0			42.6	
	Wickiup	180.0	157.6	183.7	175.0	183.9	97.7°
Willamette	Dor ena	70.5ª	53.8ª	49.8	53.2		
	Cottage Grove	30.1a	28.1ª	23.8	28.7	26.7	27.18
	Fern Ridge	94. 2ª	76.8 ^a	72.6	86.0	73.4	73.8 ^f
		WEST COAS	ST DRAIN	AGE			
Rogue	Fish Lake	7.8	-	6.9	5.4		
	Fourmille Lakeb		8.7		11.0	9.6	8.2
	Emigrant Gap	8.3	8.3	7.8	8.4	8.2	
	Hyatt Prairieb	16.1	12.2	9,6	8.1	12.3	8.7
Klamath	Upper Klamath						
	Gerber	94.0					
	Clear Lake	440.2	275.9	145.5	164.0	184.4	259.5
Goose Lake	Cottonwood	4.1	2.8		4.3		3.3g
	Drew		62.5		62.5		54.7h

control.

bBy ditch to Rogue River side from
Klamath Drainage.

cBased on gage zero elevation of 4135.0.

f1942-1950. SExcluding 1942-43. hExcluding 1942.



The following tabulation of Oregon stream basins presents the water content of the snow about May 1, 1952, as percent of the same date in 1951 and 1950 and average of record:

DRAINAGE	No. of Coursos	Yrs. of	Content	1952 Wat as perc	
	Averagod	Record	1951	1950	Avg.
Owyhee River	1	6	1467	145	568
Malheur River	ı	3			239
Burnt River	2	1-2			*-
Powder River	1	1			
Imnaha River	2	3-8	124	99	128
Grande Ronde River	4	2-8	129	85	113
Walla Walla River	1	2	164	54	82
Umatilla	3	2-4	159	50	67
John Day River	1	3		40 40	239
Crooked River	1	1	Augu tern		
Deschutes River	9	2-9	128	95	109
Willamette Valley	7	3-7	139	76	103
Umpqua River	2	3-13	150	127	138
Rogue River Upper Rogue River Bear-Little Butte Creek	5 2 3	3-13 8-13 3-5	200 154 Inf.	160 156 173	173 171 182
Klamath Lake Basin	5-7	1-13	199	158	172
Goose Lake Basin	1	1	No. UM		
Harney Basin	2	1			

NOTE: Very few May 1 snow surveys have been made in past years. Hence, comparisons in the above table are few and not completely dependable.



*Not located directly on this drainage area.

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			TOO A THE CONT	JA.				TOD MON'S	SNOW COVER MEASUREMENTS	SPATEMEN		
DRAINAGE BASIN			TUCON					Water C	Content (In.	In.)		
and SNOW COURSE	Number					Late	Snow Depth		Same Approx. Date	prox•	Years	Av.Water Content
	State	Sec.	- 1	Twp. Range	Elev.	Survey	(In•)	1952	1951	1950	Record	(Inches)
		D	UPPER		COLUMB	H D	RAIN	A G E				
					LOWER SNAKE	IN OREG						
OWYHEE RIVER					,							
Silver City I	Idaho12	e	58	3W	6400	2/2	35.0	17.6	1.2	12.1	မ	3.1
MALHEUR RIVER												
Blue Mountain Springs	133	21	158	35E	5900	4/28	16.4	7.44	i	i	ы	3.1
Crane Prairie	137	24	168	34E	5375	4/28	0.0	0.0	ı	ł	Н	0•0
Lake Creek	136	9	168	$33\frac{1}{2}E$	2120	4/28	0.0	0•0	1	ł	Н	0.0
Rock Spring	134	23	188	32E	2100	4/27	0.0	0	!	i	N)	0•0
BURNT RIVER												
Tipton	142	34	108	35 <u>2</u> E	5100	2/5	0.0	0.0	1	1	0 (1
Blue Mountain Summit	141	ဖ	128	36E	5098	2/5	000	000	0	1 ₩	03	0.0
POWDER RIVER					,			-			,	
Eilertson Meadows	1518	18	88	38E	2400	5/4	0*0	0•0	ł	1	0	1
IMNAHA RIVER												
*Aneroid Lake No. 1	183	16	48	45E	7480	5/2	82.6	46.8	37.4	46.8	ω	33.5
*Aneroid Lake No. 2	183A	16	4S	45E	2000	5/2	61.3	34.5	28.2	35.0	ы	29.8

1952	
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SON	
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		I	LOCATION	2				SNOW CO	SNOW COVER MEASUREMENTS Water Content (In.)	REMENTS In.)	1 1	
Number or						Date	Snow Depth		Same Approxe Late	proxe	Years	Av.Water Content
State Sec. Twp. R	Twb			Range	Eleve	Survey	(In.)	1952	1951	1950	Record	(Inches)
183 16 4S		4S		45E	7480	5/2	82.6	46.8	37.4	46.8	ω	33.5
183A 16 4S		4S		45E	2000	5/2	61.3	34.5	28.2	35.0	છ	29.8
186A 28 3S		38		41E	5850	5/1	25.0	11.90	1	i	0	1
188 8 5S		58		37 E	5340	Not	t Measured	~	ļ	į	0	1
212 32 4N		4N		38E	5070	4/29	32.6	16.4	10.0	30.1	~	20.1
221 24&25 18		18		35E	4300	4/29	0.0	0•0	0.0	2•6	4	3.1
LOWER				01		BIAD	RAIN	A G E				
212 32 4N 3	4N		52	38E	5070	4/29	32.6	16.4	10.0	30.1	ભ	20.1
32 4N	4N		3	38E	5070	4/29	32.6	16.4	10.0	30.1	€3	20.1
221 24&25 15 3	18		63	35E	4300	4/29	0.0	0.0	0.0	5 •6	4	3.1
29 IN	TN			35E	3925	4/29	0•0	0.0	0 ° 3	0	41	2• 1
14 9S	86		M	33 <u>‡</u> E	6000	4/30	37 •8	16.9	ł	ł	0	i
133 21 158	158			35E	2900	4/28	16.4	7.4	ŧ	i	છ	3.1
34 10S	108		M	5完臣	2100	5/2	0•0	0.0	i	i	0	i
128	128			36E	2098	5/2	0.0	0.0	0.0	7•4	~	1. 0
												9.

aTelephonic.

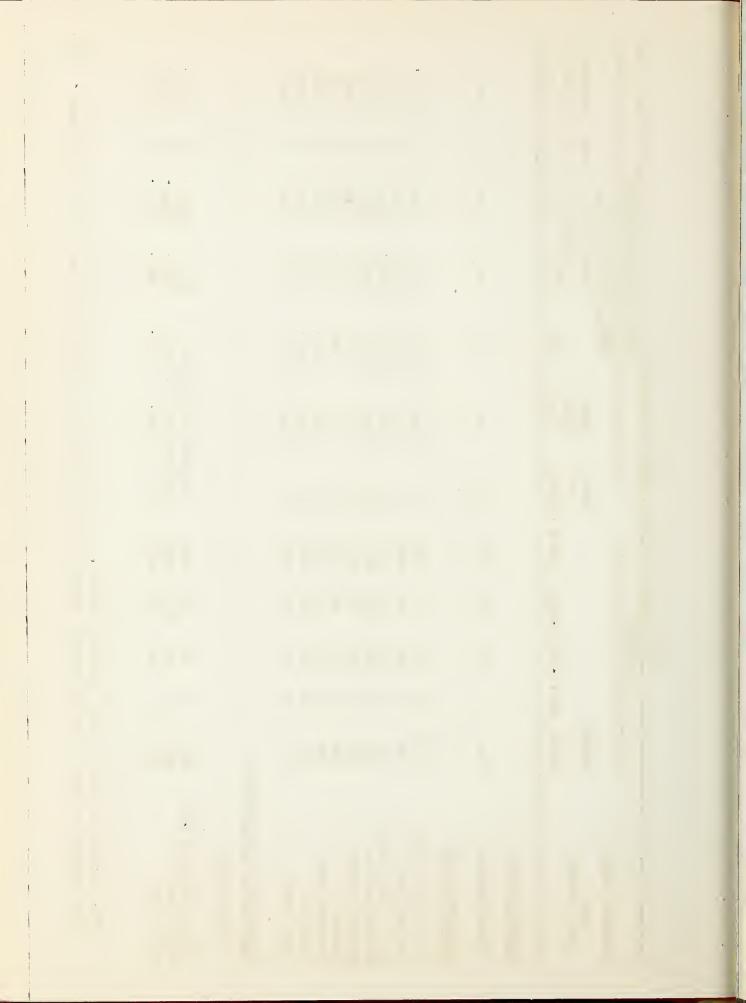


OREGON SNOW SURVEYS - ABOUT MAY 1, 1952

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		-7	LOCALL	No.		1		S MONO	JVER MEND	OFFERNENTS		
DRAINAGE BASIN								Water	Water Content (In.	(Inc)		
and	Number					Date	Snow		Same Approxo	ppro xo	Years	Av.Water
SNOW COURSE	State	Sec.	Twp	Range	Elev.	Survey	(In•)	1952	1921	1950	Record	Record (Inches)
CROOKED RIVER				-								
Ochoco Meadows	341	21	138	20E	5200	4/29	090	040	t .	;	0	!
DESCHUTES RIVER						•						
New Dutchman Flat	324A	21	188	到6	6400	5/3	128.4	72.7	60.2	61.6	o,	60.4
Windigo Pass	744	20	25.8	E E	5800	5/2	119.9	65.8	48.2	53.3	છ	50.5
Three Creeks Meadow	331	83	178	96	2600	5/3	56.€	14.4	18.1	21 •7	179	18.9
Willamette Pass	323	21	24S	5 <u>2</u> E	2600	5/2	115.6	62.0	43.8	52.3	83	47 • 4
Cascade Summit	321	7	238	6E	4880	5/4	70.0	37 •2	25.2	45.1	9	32.0
*Chemult	834	21	278	8	47 60	5/1	2.7	1.2	0 0	1.2	9	0.3
Crescent Lake	325	11	248	9	47 60	5/1	0.0	0.0	0.0	13.0	∞	6.5
Hogg Pass	351	24	138	7 <u>3</u> E	47 55	5/3	106.4	55.8	47 •6	58.7	ຜ	57.4
Clear lake	361	53	48	36	3500	5/3	11.9	0•9	6.2	23.8	83	16.1
WILLAMETTE VALLEY STREAMS	SA											
	1											
SANDY RIVER1												
Phlox Point-Mt. Hood	452	9	38	9E	5 600	Measu	Measurement De	Delayed	65.7	10001	13	60.4
Still Creek	451	25	38	8 <u>3</u> E	3700	Measu	Measurement De	Delayed	20•5	40.2	12	15.9
*Clear Lake	361	53	4S	36	3500	5/3	11.9	0.09	6 •2	23.8	63	16.1

*Not located directly in this drainage area.

Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.



OREGON ENCH SURVEYS - ABOUT MAY 1, 1952

	i	T	LOCATION	Z				SNOW COV	SNOW COVER MEASUREMENTS	SEMENTS.		
DRAINAGE BASIN								Water C	Content (In.)	no)		
and SNOW COURSE	Number					Date	Snow Depth		Same Approx. Date	roxe	Years	Av.Water Content
	State	Sec	Twp. Range	Range	Elev.	Survey	(In.)	1952	1951	1950	Record	(Inches)
WILLAMETTE VALLEY STREAMS (Cont'd)	MS (Con	t (q)										
CLACKAMAS RIVER												
*Clear Lake	361	29	48	至6	3500	5/3	11.9	0•9	6.2	23.8	83	16.1
Peavine Ridge	591 14&15	4&15	68	7臣	3500	5/2	37 •5	18.0	18.9	31.9	7	17.8
SANTIAM RIVERS												
Hogg Pass	351	24	138	73E	4755	5/3	106.4	55.48	47 •6	58.7	Ð	57.4
Santiam Junction	552	14	138	7E	3990	5/3	41.2	25.0	6.1	34.4	4	18.3
Marion Forks	553	28	118	7.E	27 30	5/3	0.0	0•0	0.0	18.5	ы	6 15
Breitenbush	551	21	SS	7正	2325	Measu	Measurement Delayed	layed	0•0	7.5	4	3.2
McKENZIE RIVER												
Hogg Pass	351	24	138	7%	4755	5/3	106.4	55.8	47 •6	58.7	Ŋ	57 • 4
Santiam Junction	552	14	138	7E	3.950	5/3	41.2	22.0	6•1	34.4	4	18.3
MIDDLE FORK WILLAMETTE RIVER	S RIVER											
Willamette Pass	323	23	248	5 <u>3</u> E	2600	2/5	115.6	62.0	43.8	52.3	ы	47 • 4
Cascade Summit	321	2	233	至9	4880	5/4	70.0	37 •2	22.2	45 • 1	မ	32 • 0

*Not located directly on this drainage area,

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OREGON SNOW SURVEYS - ABOUT MAY 1, 1952

		Ä	LOCATION					SNOW COV	SNOW COVER MEASUREMENTS	EMENTS		
DRAINAGE BASIN								Water Co	Water Content (In.)	10)		
and SNOW COURSE	Number					Date of	Snow Depth	,	Same Approx. Date	гож•	Years	Av.Water Content
	State	Sec.	Twp.	Range	Eleve	Survey	(In.)	1952	1921	1950	Record	(Inches)
		01	이 되 리	0 5 N	C O A S	T D R	AINAG	[21]				
UMPQUA RIVER												
Windigo Pass	744	8	255	E E	5800	5/2	119.9	65 • 8	48.2	53.3	က	50.5
Diamond lake	743	53	278	E	5315	4/30	47 • 8	26.0	12.8	18.9	13	15.9
Trap Creek	741	~ 1	27 S	4E	3800	5/1	26.9	12 • 0	ŧ	i	0	i
ROGUE RIVER												
*Park Headquarters	838	ဆ	318	6E	6450	5/1	161.5	92.9	61.4	0.09	œ	58.4
Bragg Mountain	7220	6	47N	TOM	9700		Not measured		1	25.9	~	25 • 9
*Annie Spring	831	13	318	6E	6018	5/1	132.6	73.7	46.8	46.5	13	39 • 5
Fourmile Lake	7223	o,	368	2E	0009		No Report		1	į	0	1
Billie Creek Divide	722	30	368	2E	5300	4/22	65 •2	36.0	E-1	21 •0	ည	19.8
*Hyatt Prairie Reservoir		15	398	3E	4 900	5/1	0.0	0.0	0.0	0	63	2.9
Fish Lake		က	378	45	4865	4/22	28.2	13.6	0•0	7.0	3	4.5
Silver Burn	7219	30	308	4臣	37 20	Not	t Measured		0.0	6.5	લ્ય	3.3
South Fork Canal	7218	12	338	35	3500	No	Not Measured		0.0	0.0	ณ	000
KLAMATH LAKE BASIN												
Park Headquarters	838	8	318	6 E	6450	5/1	161.5	92.9	61.4	0.09	ω	58.4
Annie Spring Fourmile Lake	831	19	31.5	6B 5B	6018	5/1	132.6 No Report	73•7	46.8	46.5	13	39.2
							•					

*Not located directly on this drainage area.



OREGON SNOW SURVEYS - MAY 1, 1952

		hv.Water Content	Record (Inches)		0.0	19.8	5.0	2.9	0.3		0.0			0.0		000))
		Years	Record		Н	2	9	83	9		н			н		Н 83	L
REMENT S	In.)	proxe	1950		ŀ	21.0	;	0.0	1.2		i			ł		1 1	
EK MELSU	Content (In.	Same approx.	1981		0.0	EH	0.2	0.0	0•0		0•0			0.0		1 1	
SNOW COVER WELSURENE ST	Water C		1952		0.0	36.0	12.1	0.0	1.2		0.0			0.0		0.0)
		Snow De pth	(In.)				23.4	0.0	2.7		0•0	N A G E		0.0		000))
		Date of	Survey		5/1	4/22	5/1	5/1	5/1		5/1	DRAI		5/1		4/28	· ~ /-
			Eleve		5320	5300	4960	4900	4760		5320	1 0 R		5320		5120) 1
LOCATION			Range	Twp. Range	16E	5臣	5臣	3E	8 E		16E	TER		16E		33½E	1
			Twp		388	368	37 S	398	27 S		38S		388		16.5) }	
			Sec.		જ	30	Ħ	15	21		N			82		10)
		Number	State	t 1d)	811	722	835	723	834		811			811		136	†
	DRAINAGE BASIN	and SNCW COURSE		KLAMATH LAKE BASIN (Cont'd)	*Quartz Mountain	Billie Creek Divide	Lake of the Woods	Hyatt Prairie Reservoir	Chemult	GOOSE LAKE BASIN	Quartz Mountain		CHEWAUCAN RIVER	*Quartz Mountain	HARNEY BASIN	Lake Creek Rock Spring	Que Ja Wall

*Not located directly on this drainage area.



WILLAMETTE VAILEY SWOW PROFILES - ABOUT MAY 1, 1952

		100	LOCATION					SNOW COV	SNCW COVER MEASUREMENTS	EVENTS		
STREAM BASIN								Water C	Water Content (In.)	(•u	Past	Past Record
and SNOW COURSE						Late of	Snow Depth		Same Approx. Date	roxe	Years	Av.Water Content
	Eleve	Number Sec.	Sec	Twp.	Twp. Range	Survey	(In.)	1952	1951	1950	Record	Record (Inches)
SANDY RIVER1												
Phlox Point-Mt. Hood	2 600	452	9	38	图 6	Measure	Measurement Delayed	elayed	65.7	10001	13	60.4
Still Creek	3700	451	K	38	8 2 E	Measur	Measurement Delayed	elayed	20 •5	40 •2	12	15.9
CLACKAMAS RIVER												
Pcavine Ridge	3500	591 14&1	4&15	68	7.医	5/2	37 •5	18.0	18.9	31.9	7	17.8
Clackamas Lake	3400	269	35	58	8 } F	No Measurement	rement	Scheduled				
Big Bottom	2118	*	25	89	7区	5/5	0.0	000				
Lake Harriet	2045	*	4	68	7臣	5/5	0•0	0•0				
SANTIAM RIVERS												
Hogg Pass	47 55	351	24	138	7 <u>3</u> E	5/3	106.4	55.8	47.6	58.7	ß	57 • 4
Santiam Junction	3990	552	14	138	7E	5/3	41.2	22.0	6.1	34.4	쉭	18.3
Marion Forks	2730	553	28	118	7臣	5/3	0.0	0•0	0.0	18.5	83	6.5
Breitenbush	2325	551	21	98 86	7E	Measurement	ement I	Delayod	0•0	7.2	4	3.2
Whitewater Bridge	2175	*	28	108	7E	5/3	0	0.0				
Detroit (new town)	1500+	*	r 	108	2至	5/3	0.0	0•0				
Detroit Dam	1580	*	2	10.5	5瓦	5/3	0•0	0•0				
Mill City	826	*	29	9 S	3臣	5/3	0•0	0.0				
Snow Line: About 2500 feet - with drif	O feet -	with dr	ts.	n tim	ber dow	in timber down to 1800 feet.	feet.					
MOUTE CLOCKOLO CTROIL	J. 1000			L 2	17000		とっていっている つ					

Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions. *Auxiliary snow station - average of 3 to 5 samples - measurements taken at same point each survey. NOTE: Standard Snow Course measurements unless otherwise indicated.



WILLAMETTE VALLEY SHOW PROFILES - ABOUT MAY 1, 1962

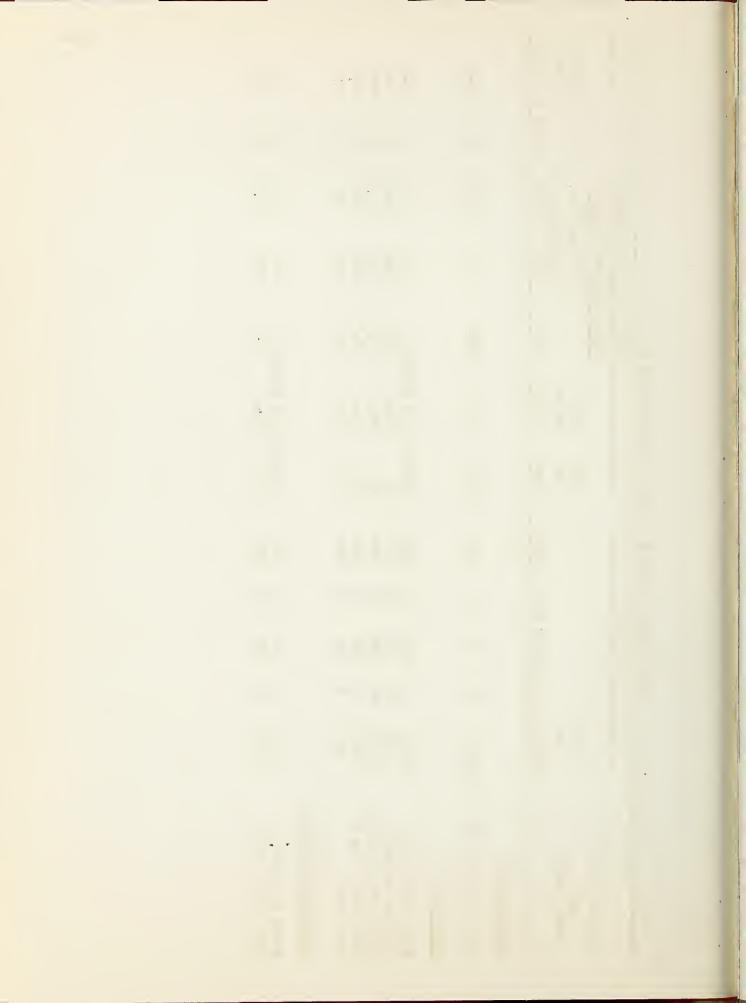
		MOTOLOGI	TO A TO A			2012		SNOW C	SNOW COVER ME STIREMENTS	DENEMPS		
STREAM BASTN		3	2 1 1 1					Water	Water Content (In.	In.)	Past	Record
						ģ	٥	,	2		V	A TIT- 4
and SNOW COURSE						of	Dep th	ď	sume Approx Date	roxe	of	Content
	Elev.	Number Sec.	Sec	Twp	Twp. Range	Survey	(In.)	1952	1951	1950	Record	(Inches)
don't d'arsient												
We hely of the Mark												
Mc Kenzi e	4800	531	88	158	7是E	No measur	ement :	No measurement scheduled				
Hogg Pass	4755	351	24	138	7毫压		106.4	55.8	9• ∠₹	58.7	5	57 • 4
Santiam Junction	3990	552	14	138	7民	5/3		22.0	6.1	34.4	4	18.3
Dead Horse Grade	3800	*	13	168	7E	No measurement		scheduled				
White Branch Slide	2800	*	扫	168	7郎	No measurement		scheduled				
Lost Creek Ranch	1956	*	24	168	6E	No measurement		scheduled				•
McKsnzie Bridge	1372	*	13	168	5E	No measurement		scheduled				
Vidae	800	*	28	168	2 至	No measurement		schedul od				
MIDDLE FORK WILLAMETTE RIVER	RIVER											
Willamette Pass	2600	323	21	248	5 <u>3</u> E	5/2	115.6	62.0	43.8	52.3	63	47 •4
Waldo Lake	5500	521A	15	218	EE CE	No measur	rement	No measurement scheduled				
Hiway Summit	51234	*	2	238	E	No measurement		sc hedu led				
Cascade Summit	4880	321	7	258	6 E	5/4		37 •2	22.2	45.1	9	32.0
Champion	4500	522	12	23S	田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田			scheduled				
Salt Crock Falls	4000	*	33	22S	E	5/4	38.1	18•6				
Rai lroad Overpass	2750	*	27	228	2E	5/4	0	0.0				
McCredie Spring	2120	*	36	218	4E	5/4	0	0				
Oakridge	1310	*	16	218	SE		0	0				
Meridian Dam	750	*	13	198	TW.		0	0.0				
Snow Line: Not stated by observer; somewhere between	by obse	rver; so	mewhe	re be		4000° and	27501					

NOTE: Standard Snow Course measurements unless otherwise indicated. *Auxiliary snow station - average of 3 to 5 samples - measurements taken at same point each survey.



OREGON SNOW SURVEYS - APRIL 1952 (DELAYED DATA)

		П	LOCATION	·27				SNOW CO	SNOW COVER MEASUREMENTS	REMENTS		
DEALINAGE BASIN								Water	Water Content (In.)	In.)		
and SNOW COURSE	Number					Date	Snow Depth		Same Approx. Date	prox.	Years	Av.Water Content
	State	Soc.	Twp	Range	Elev.	Survey	(In.)	1952	1951	1950	Record	Record (Inches)
OWYHEE RIVER												
South Mountain #2	Idaho13	35	7.8	5W	6340	4/19	41.0	18.9	ì	14.5	נו	11.6
ROGUE RIVER												
Seven Lakes No. 1	7211	63	34.5	5距	0089	Incom	Incomplete Surveys	veys	72.4	74.5	16	56.9
Big Red Mountain	729	31	40S	JW	6500	4/7	103,6	50.1	22.3	29.3	1 6	28.0
Little Red Mountain	7210	25	40S	2111	6500	8/4	80.2	39.2	16.3	22.5	91	21.9
Seven Lakes No. 2		5 6	338	2E	6200	4/12	164.4	73.7	45.9	52.0	16	42.5
Fish Lake	725	છ	378	4E	4865	4/18	31.9	14.4	ł	i	0	1
KLAMATH LAKE BASIN												
Seven Lakes No. 1 Seven Lakes No. 2	7211	26	34 <i>S</i> 33 <i>S</i>	5E	6800	Incomp $4/12$	Incomplete Surveys 12 164.4 73	veys 73.7	72.4	74.5	16 16	56.9 42.5



OREGON PRECIPITATIONa

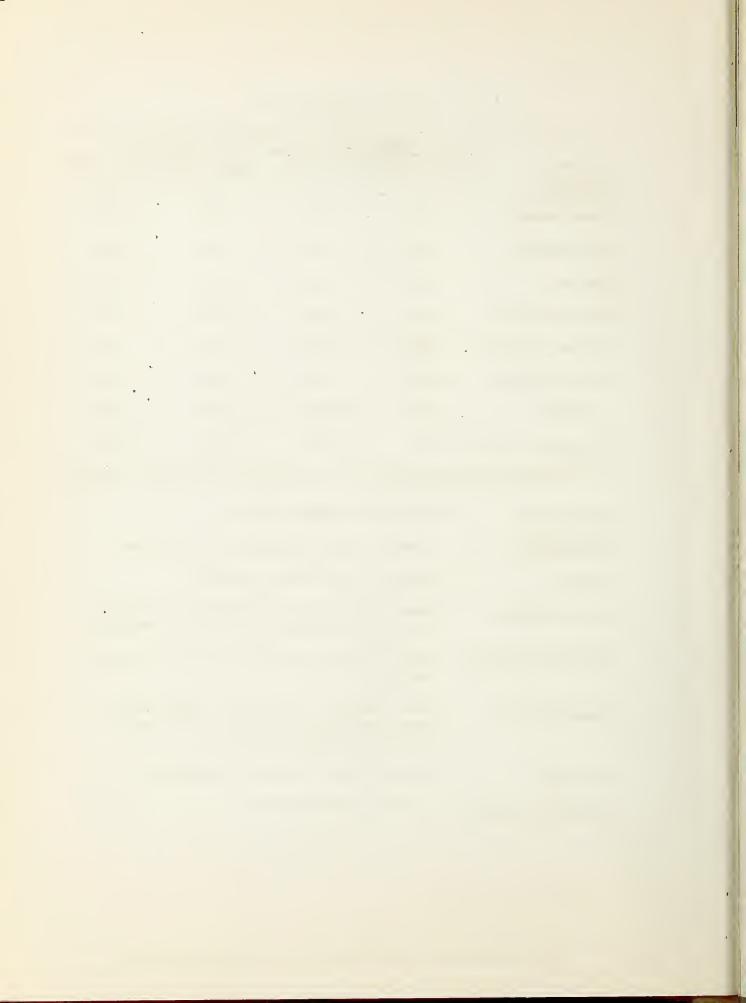
	CURREN	T YEAR	LAS	r year
DRAINAGE	Oct. 1, 1952			50-May 1, 1951
DIVISIONS	P	D	Р	D
Southeastern	8.21	+ 1.61	7.42	+ 0.81
Southcent ral	8.78	+ 1.89	9.81	+ 2,71
Cent ral	8.33	+ 0.15	11.55	+ 3.31
Columbia River	11,22	- 0.92	17.23	+ 5.24
Wallowa Mountains	11.63	- I.40	10.62	- 1.56
Blue Mountains	11.17	+ 0.26	9.99	+ 0.18
Southern	28.38	+ 6.96	29.76	+ 9.47
Willamette Valley	47.15	+ 2.89	59.67	+16.73
P - Inches I	Precipitation	D - Inc	hes Departur	e from Normal
Southeastern	- Malheur	and Owyhee dr	ainages.	
Southcentral	- Interior	Basin draina	ges and Goose	Lake.
Central	- Deschute	s and Crooked	drainages.	
Columbia River		lleys of the , Deschutes a		
Wallowa Mountains	- Imnaha, drainage	Wallowa, Cath s.	erine, Eagle	, and Pine
Blue Mountains	Ronde, U	lleys of the matilla, Wall and Malheur d	a Walla, John	

Willamette Valley - All Willamette drainages.

- Umpqua, Rogue and Klamath drainages.

Southern

aPreliminary data computed from Weather Bureau records.



STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Department of National Defense
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company Portland General Electric Company The California Oregon Power Company

MUNIC IPALITIES

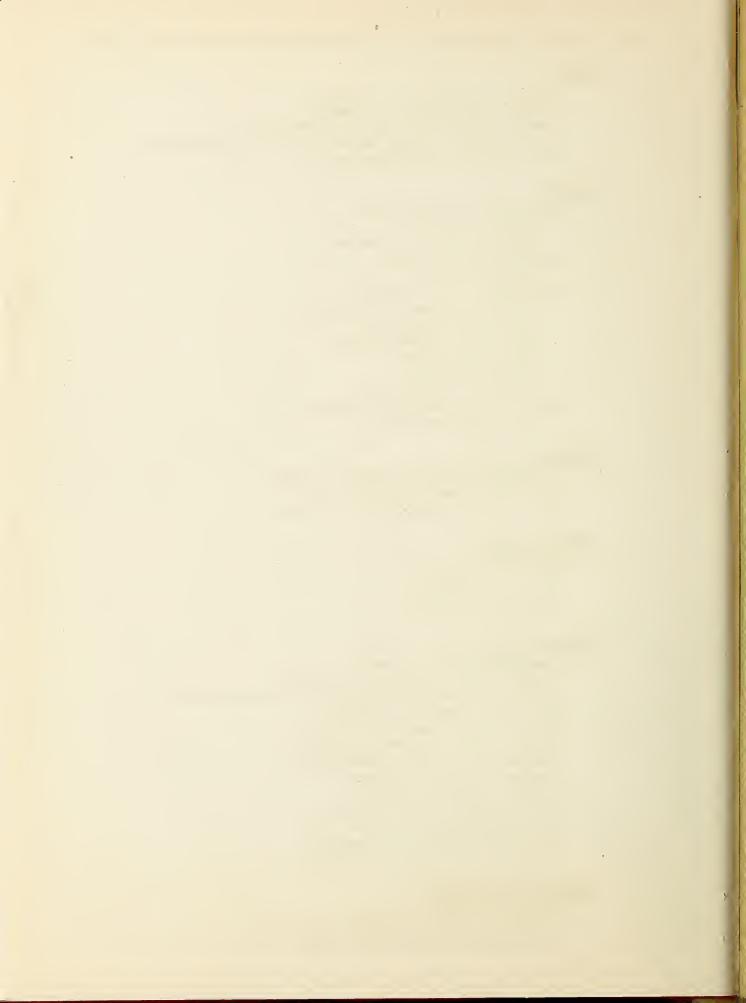
City of Baker City of Corvallis City of La Grande City of The Dalles

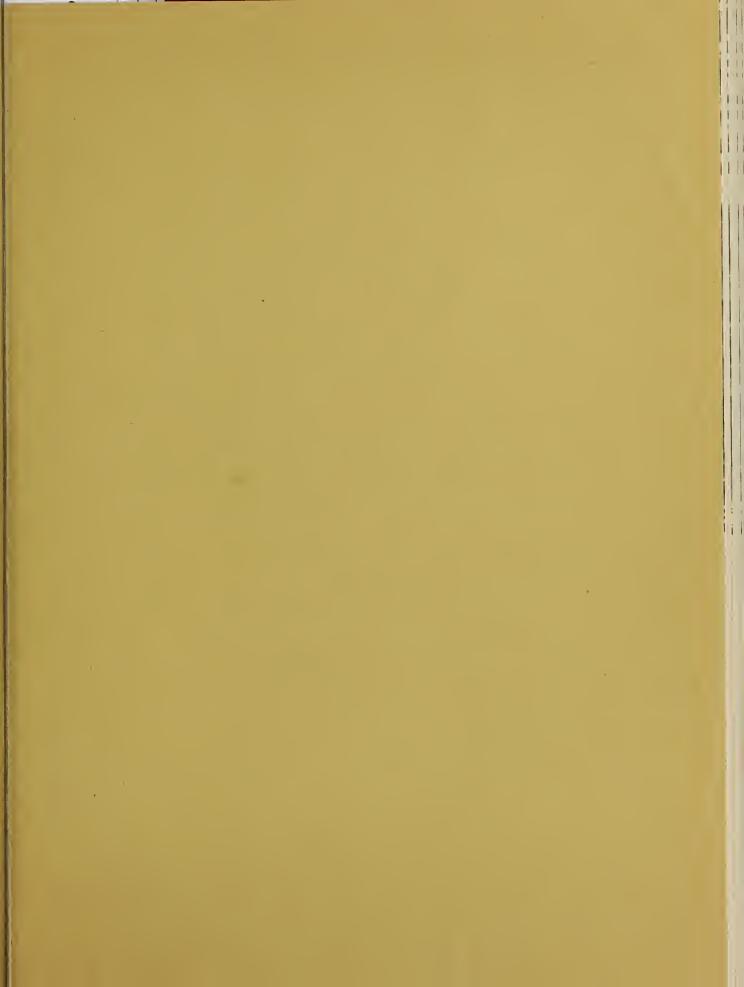
IRRIGATION DISTRICTS

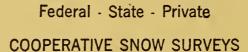
Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview "ater Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company South Wasco Soil Conservation District The Crag Rats, Hood River, Oregon







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"